Wayne Hoepner National Weather Service Grand Rapids, MI

Overview

June 2010 was wetter and a little warmer than normal and produced a lot of severe weather.

The average temperatures for June 2010 across Southwest Lower Michigan were between 64 and 70 degrees with values running from near normal to over 2 degrees above normal (Figure 1). The average highs were 2 degrees cooler than normal to near normal. The average lows were 1 to 2.5 degrees above normal.

The precipitation totals for June (Figure 5) were 4 to 9 inches across Southwest Lower Michigan. The totals were 1.5 to 4.5 inches above normal (Figure 6).

Location		Temperature (degrees F)	Precipitation (inches)	Snowfall (inches)
Grand Rapids	Reported	69.2	8.04	0
	Normal	67.1	3.67	0
	Departure	+2.1	+4.37	0
Lansing	Reported	68.7	4.57	0
	Normal	66.2	3.60	0
	Departure	+2.5	+0.97	0
Muskegon	Reported	67.6	4.52	0
	Normal	64.9	2.58	0
	Departure	+2.7	+1.94	0

Table 1. Reported temperature, precipitation and snowfall for June 2010 for Grand Rapids, Lansing and Muskegon.

Temperature Summary for June:

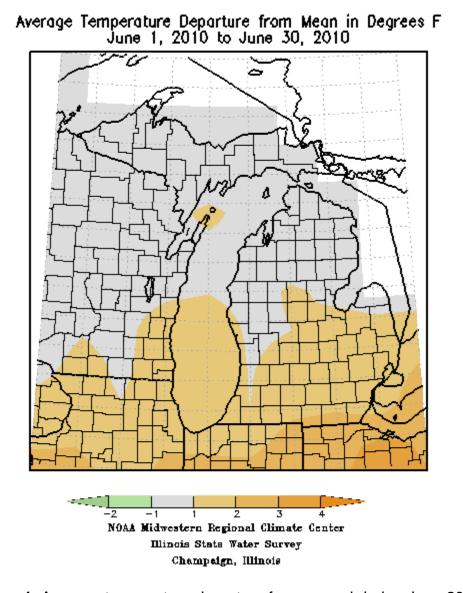


Figure 1. Average temperature departure from normal during June 2010.

Average temperatures at the three Southwest Lower Michigan climate sites (Table 1) were between 2 and 3 degrees above normal. As can be seen from Figures 2-4, much of June was warmer than normal. However, there were 3 distinct cooler periods: From the 6th through the 9th; from the 13th through the 17th; and on the 29th and 30th.

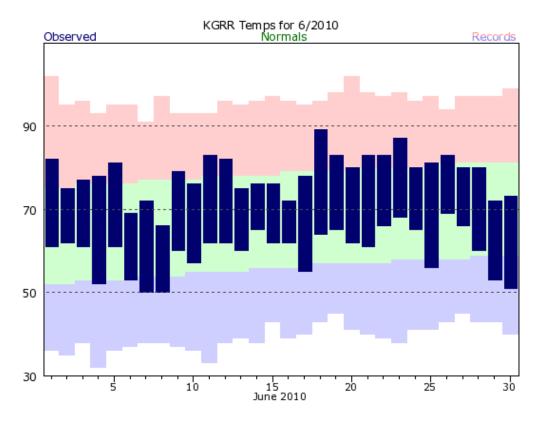


Figure 2. Observed temperatures at the Gerald R. Ford International Airport. Dark blue bars are the temperature range for each day. The central colored strip indicates the normal range of temperatures. Record high and low temperatures are indicated in the top colored strip and the bottom colored strip, respectively.

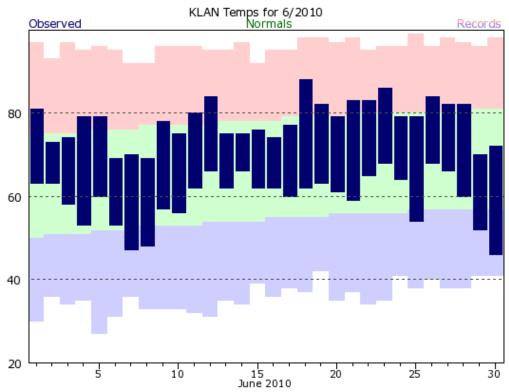


Figure 3. As in Figure 2, except for the Lansing/Capital City Airport.

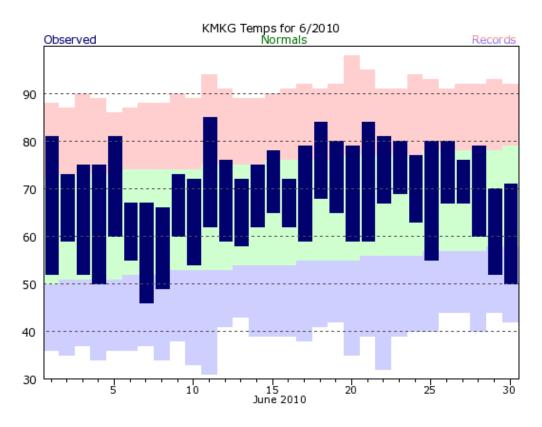


Figure 4. As in Figure 2, except for the Muskegon County Airport.

Precipitation Summary for June:

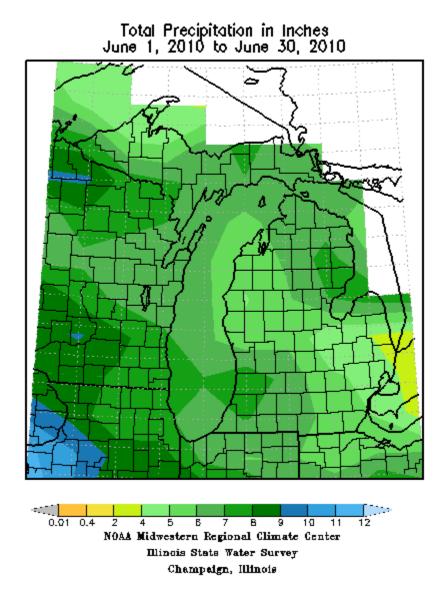


Figure 5. Total precipitation for June 2010.

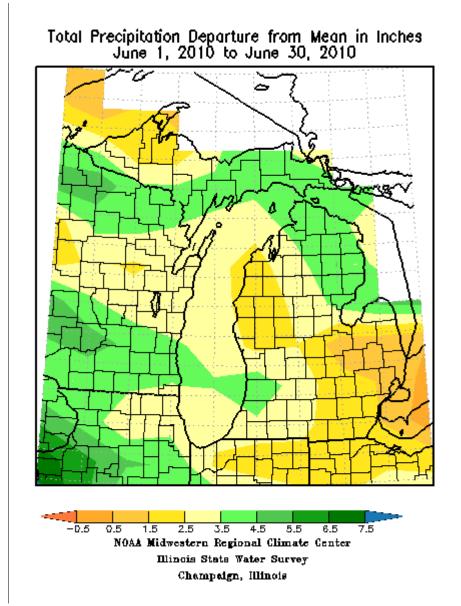


Figure 6. Precipitation departure from normal during June 2010.

The total precipitation for the climate sites this month (Table 1) ranged from 4.52 inches in Muskegon and 4.57 inches in Lansing up to 8.04 inches in Grand Rapids. These totals were 1.94 inches, 0.97 inches and 4.37 inches above normal respectively. As can be seen from Figures 7-9, this above normal precipitation was accumulated over multiple days. Daily totals greater than half an inch fell on 4 or 5 days at each site.

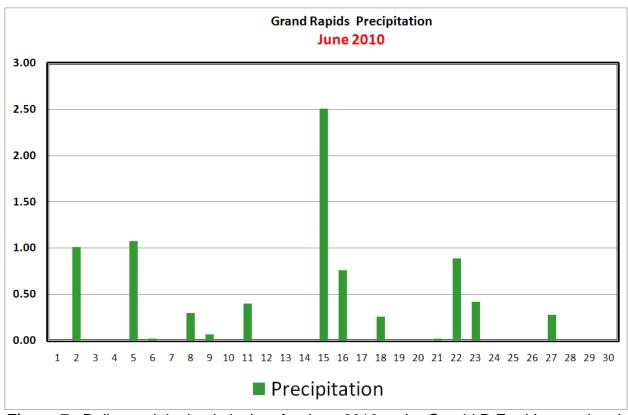


Figure 7. Daily precipitation in inches for June 2010 at the Gerald R Ford International Airport.

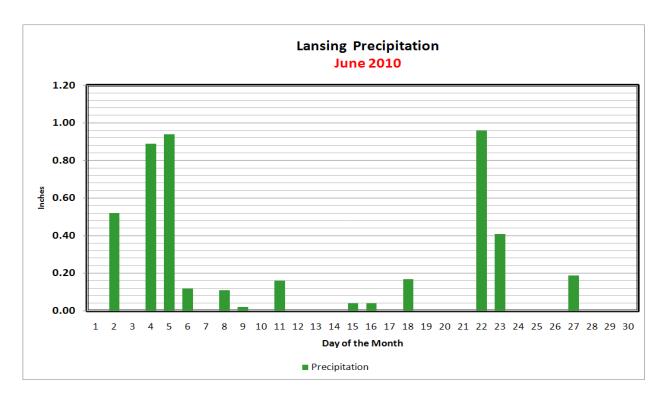


Figure 8. As in Figure 7, except for the Lansing Capital City Airport.

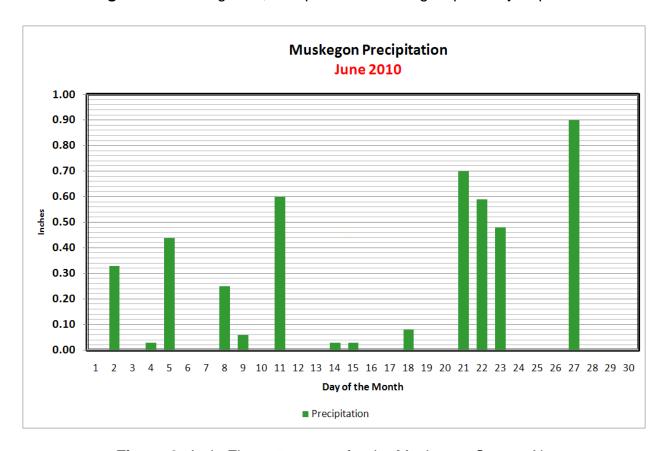


Figure 9. As in Figure 7, except for the Muskegon County Airport.

Severe Weather Summary for June:

A series of systems moved across Southwest Lower Michigan in early June. Thunderstorms caused wind damage and produced some hail with diameters below an inch. An EF-1 tornado (Figure 10) occurred at 12:03 am on the 6th two miles south of Battle Creek in Calhoun County.

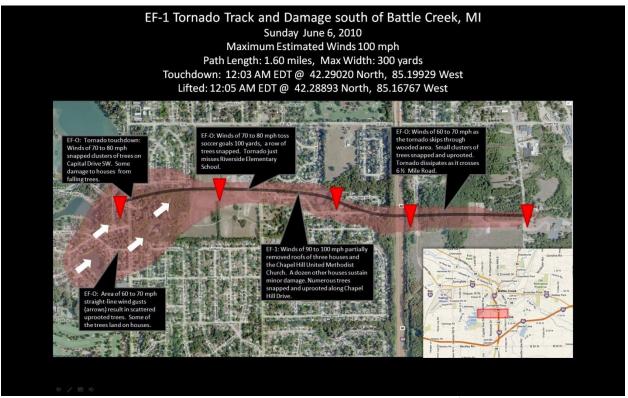


Figure 10. Track of EF-1 tornado Sunday June 6th, 2010.

A round of thunderstorms, on the evening of the 18th into the 19th, produced strong damaging winds in the forecast area. Hail, with a diameter of 1.75 inches, was reported in Jackson County. Yet another round of thunderstorms, from the evening of the 21st into the 23rd, produced strong damaging winds and heavy rain. An EF-0 tornado (Figure 11) touched down around 12:58 am EDT on the 22nd 3 miles northeast of Zeeland in Ottawa County.

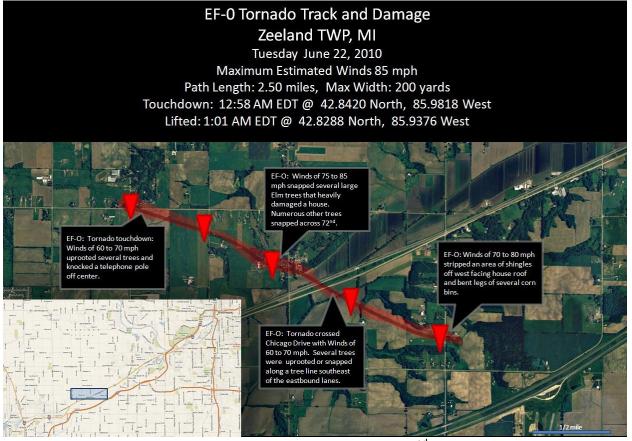


Figure 11. Track of EF-0 tornado Tuesday June 22nd, 2010.

The last stormy period for June occurred from the 27th into the 28th. Again, strong damaging winds and heavy rainfall fell upon the area. Another tornado was also confirmed with this system. The EF-0 tornado (Figure 12) occurred around 1:08 pm EDT on the 27th a mile South Southeast of Gobles in Van Buren County.



Figure 12. Track of EF-0 Tornado Sunday June 27th, 2010